MARKER ARGUMENTATION FOR AN INTEGRATED CIRCUIT DESIGN TOOL AND FILE STRUCTURE

ABSTRACT OF THE DISCLOSURE

A design tool and method characterizes a circuit at a hardware level description. A behavioral level description of the circuit is created. Symbolic equations for components of the behavioral level description are created. The behavioral level description is partitioned by inserting a marker component into the behavioral level description of the circuit to simplify subsequent processing used to prove equivalence between the behavioral and hardware level descriptions. The symbolic equations are back-substituted until output variables are expressed in terms of input variables that determine the output variables. The marker component is defined using a unique symbolic name. Current time counts of each clock cycle are used to compute an index for the marker component. The behavioral level description is transformed to produce symbolic and numeric files for compilation to gates and proof of functionality.